REMARKS

Claims 21-40 have been rejected under 35 USC 112, first paragraph. The rejection is respectfully traversed.

The expression "internal logical networks" is generally introduced, e.g., in the background section of the invention in paragraph [0003] indicating that telecommunication networks consist of a multiplicity of exchanges (nodes), which can form individual networks with subscribers attached. Although every signaling point (e.g., exchange) may be uniquely identified in the network by a signaling point code (SPC), it may be of advantage in case one exchange to replace another exchange, for those two exchanges to be both operational during a transition phase.

For further clarification, reference is made to Fig. 1 of the instant invention. Fig. 1 shows an example in which two exchanges A-Vst, B-Vst having the identical signaling point code OPC=111 are operated in one and the same MTP network. Either exchange A-Vst can be the exchange which is to be newly added, in which case the already existing exchange B-Vst is adapted in accordance with the invention, or the exchange A-Vst already exists and the exchange B-Vst is added. It is assumed that the already existing exchange A-Vst is to be replaced by the new exchange B-Vst, wherein it must be possible to gradually move onto the exchange B-Vst the connections of the exchange A-Vst to subscribers X and other exchanges (not shown).

Two internal logical networks N1 and N2 are set up in the exchange B-Vst. All signaling paths of the exchange A-Vst to the nodes in the signaling network are initially assigned to the network N1. In addition, a signaling path S1 is set up between the exchange A-Vst and the network N2 of the exchange B-Vst, so that the exchange A-Vst has continued access to the signaling network. Since an SS7 link can be active between two different point codes, a signaling point code OPC=112 is assigned to the network N2. With the exception of the exchange A-Vst, this signaling point code OPC=112 is not visible to any of the other exchanges C-Vst in the SS7 network.

The outgoing connections from the exchange A-Vst to subscribers X and other exchanges (not shown) can now be gradually migrated onto the network N1 of the new exchange B-Vst by adapting the databases in the exchanges A-Vst and B-Vst, wherein a connection between the exchange A-Vst and a destination in the SS7 network is made via the exchange B-Vst.

As only exchange A-Vst is connected to the network N2 of the exchange B-Vst, all messages arriving in the network N2 of the exchange B-Vst can be assigned to the exchange A-Vst. This is shown in Fig. 2a, using the example of a message 1 which is sent from the exchange A-Vst to the exchange C-Vst. Message 1 includes the signaling point code of the source (originating signaling point) OPC=111 and that of the destination (destination signaling point) DPC=200. In the exchange B-Vst, the message 1 is forwarded to the exchange C-Vst by means of the MTP routing database of the network N1.

Fig. 2b shows the procedure in the opposite direction: All ISUP messages 2, which are received from the SS7 network and have the destination signaling point code OPC=111 initially arrive at the network N1 in the exchange B-Vst. From there, they are forwarded to a User Allocation UA function (MTP Layer 3), because they are specified for the local point code OPC=111. A check is performed to determine whether the voice circuit code CIC=q is known or whether the corresponding trunk group has been set up. If this were the case, the message would be forwarded to the local ISUP user part (Layer 4). In this example, because it was already partly moved from the exchange A-Vst to the network N1 of the exchange B-Vst, the corresponding trunk group is known at the exchange B-Vst. However, the trunks having the CIC values q (see Figure 1) are not yet set up on the exchange B-Vst. The exchange B-Vst does not subsequently issue an error message (Unequipped Circuit Identification Code, UCIC), as would normally occur in such a case, but instead forwards the message 2 to the exchange A-Vst using the routing database of network 2, i.e. the messages 2 arriving in the network N1 and addressed to the exchange B-Vst are forwarded to the network N2 if the messages 2 cannot be assigned.

During the transition phase, in order to reach subscribers on the exchange A-Vst for whom incoming ISUP calls from the exchange C-Vst nonetheless terminate on the exchange B-Vst, it is necessary to set up ISUP trunks between the exchanges A-Vst and B-Vst and to forward these incoming calls to the exchange A-Vst. This is known as "rerouting." The ISUP trunks are also used as connection lines for calls between subscribers of the exchanges A-Vst and B-Vst. The signaling for this takes place via the internal network N2, i.e. these ISUP trunks are allocated to the local point code 112 in the exchange B-Vst.

SCCP (Signaling Connection Control Part) messages, which are sent from the SS7 network to the shared point code 111, are all forwarded to the corresponding SCCP applications

on the exchange B-Vst, where a check is performed to determine whether they relate to a subscriber who is known on the exchange B-Vst. If this is not the case, the message is forwarded out of the network N2 from the application via SCCP and MTP directly to the exchange A-Vst (OPC=111).

Hence, pursuant to claim 21, **"at least two internal logical networks are set up in the network node"** enables the network node to have two logical entities that could utilize two different point codes (OPC_{N2} = 112 and OPC_{N1} = 111 according to Fig. 1 and the example described above). This signaling point code of the second internal logical network (OPC_{N2}) is different from that of the exchange (B-Vst, OPC_{N1} = 111), since this OPC_{N2} is only visible from the exchange A-Vst coupled to the second internal logical network. Thus, from a network perspective beyond exchange A-Vst and B-Vst, both such exchanges are perceived as one exchange **(with one signaling point code)**. The signaling point code OPC_{N2} of the second internal logical network is encapsulated within an object combining both exchanges (A-Vst and B-Vst) from the outside world and in particular only visible to and/or utilized by exchange A-Vst.

It is noted, however, that the approach provided can be used on both an exchange which must be added or on an already existing (old) exchange. The second internal network is used exclusively for the connection of the original or the new exchange. The connection of the claimed exchange to the signaling network, on the other hand, takes place via the first internal network. The exchange which is coupled to the second internal network can communicate with the signaling network by means of a logical communication connection between the first and second internal network.

Thus, the skilled artisan only needs to provide two internal logical networks (instead of one) for a particular network node. According to the given example of migration, adding or updating an existing exchange, there may (temporarily) be two exchanges acting as one to the remaining network, wherein the two exchanges organize themselves by gradually moving connections from one exchange to another without having to enter an offline mode.

Hence, in view of the above and the specification, it is well disclosed how an internal logical network would be functionally set up or a configuration of a network node to enable multiple logical networks can be achieved.

Claims 21-40 have also been rejected under 35 USC 112, second paragraph. The rejection is respectfully traversed.

Similar to the arguments above, the term "internal logical network" is deemed indefinite by the Examiner. Applicants respectfully disagree.

The term "internal logical network" enables the network node (e.g., the exchange) to comprise at least two logical entities that could be used for encapsulating an additional node that is accessible from the outside via the same signaling point code as is the actual network node providing such encapsulation. Hence, the internal logical network can be perceived as a functionality to provide said service of a first signaling point code of the network node and a second signaling point code used for addressing the (temporarily) hidden network node (A-Vst according to the example described above). In view of the above, the term "internal logical network" is not considered indefinite.

Claim 30 has been amended accordingly.

In view of the above, Applicants submit that this application is in condition for allowance. An indication of the same is solicited. The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing, referencing Attorney Docket No. 119010-014.

Respectfully submitted,

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